

Appl. No. 10/013,980

Amdt.AF. dated January 14, 2005

Reply to Office Action of November 16, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (previously presented) A lead electrode assembly for use with an implantable cardioverter-defibrillator subcutaneously implanted outside a patient's ribcage between the third and twelfth ribs, wherein the lead electrode assembly comprises:

an electrode having a proximal end and a distal end, and top and bottom surfaces;

a backing layer positioned over the top of the electrode; and

a fin;

wherein the backing layer forms the fin and the fin projects from the backing layer.

2-58. (cancelled)

59. (previously presented) The lead electrode assembly of claim 1, wherein at least a portion of the fin projects substantially perpendicular from the backing layer.

60. (previously presented) The lead electrode assembly of claim 1, wherein the backing layer is attached directly to the electrode, and the backing layer is substantially the same size as the electrode.

61. (previously presented) The lead electrode assembly of claim 1, further comprising a lead electrically coupled to the distal end of the electrode.

62. (previously presented) The lead electrode assembly of claim 1, wherein the backing layer is made of a polymer.

63. (previously presented) The lead electrode assembly of claim 62, wherein the backing layer is made of polyurethane.

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64. (previously presented) The lead electrode assembly of claim 1, further comprising a cover disposed over the backing layer and fin.

65. (previously presented) The lead electrode assembly of claim 64, wherein the cover is molded and encloses at least a portion of the bottom of the electrode.

66. (previously presented) The lead electrode assembly of claim 1, wherein the backing layer includes a first backing region having a first edge and a second backing region having a second edge; the first and second backing regions separated by an indented fin-forming region; the fin-forming region divided into first and second fin sides; wherein the backing layer is attached to the electrode such that the first and second edges of the first and second backing regions meet, and the fin-forming region folds to form the projecting fin.

67. (currently amended) The lead electrode assembly of claim ~~[[1]]~~ 66, further comprising a reinforcing polymer between the first and second fin sides.

68. (previously presented) The lead electrode assembly of claim 1, wherein the fin has a proximal and a distal end, wherein the proximal end of the fin is sloped.

69. (previously presented) The lead electrode assembly of claim 1, wherein the backing layer is made of a flexible material.

70. (previously presented) The lead electrode assembly of claim 69, wherein the flexible material is silicone.

71. (previously presented) The lead electrode assembly of claim 69, wherein the fin is flexible such that it folds thereby reducing a height of the fin.

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72. (previously presented) The lead electrode assembly of claim 1, wherein the fin has first and second sides, and the first and second sides are connected at a bottom and top of the fin, such that the fin is substantially tubular.

73. (previously presented) The lead electrode assembly of claim 72, wherein the fin has a proximal and a distal end, wherein the first and second sides of the fin are connected along a length of the proximal end such that the fin is closed at the proximal end and open at the distal end.

74. (previously presented) The lead electrode assembly of claim 73, wherein the proximal end of the fin is sloped.

75. (previously presented) An implantable lead electrode assembly comprising:
an electrode having a discharging face and an opposing face, and proximal and distal ends;

a backing layer attached to the opposing face of the electrode, the backing layer having a base portion and an integral fin;

wherein the fin extends beyond the base portion of the backing layer.

76. (previously presented) The implantable lead electrode assembly of claim 75, wherein the fin extends from a side of the backing layer such that a top edge of the fin is substantially parallel with the side of the backing layer.

77. (previously presented) The implantable lead electrode assembly of claim 75, further comprising a cover attached to the backing layer, the cover enclosing the backing layer, fin, opposing face of the electrode, and at least a portion of the discharging face of the electrode.

78. (previously presented) The implantable lead electrode assembly of claim 77, further comprising a reinforcing polymer disposed between the fin and cover.

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79. (previously presented) The implantable lead electrode assembly of claim 75, wherein the fin has a proximal end and a distal end, and the proximal end is sloped.

80. (previously presented) The implantable lead electrode assembly of claim 75, further comprising a lead electrically coupled to the distal end of the electrode.

81. (previously presented) An implantable lead electrode assembly comprising:
an electrode having a first face and a second face;
a backing layer disposed over the first face of the electrode; and
a flexible fin disposed on the backing layer, the fin extending away from the first face of the electrode.

82. (previously presented) The implantable lead electrode assembly of claim 81, wherein the fin includes a rigid head and flexible connector, the flexible connector attaching the rigid head to the backing layer.

83. (previously presented) The implantable lead electrode assembly of claim 82, wherein the fin is moveable from a first position in which the rigid head extends substantially perpendicular from the electrode to a second position in which the rigid head is substantially parallel to the electrode.

84. (previously presented) A lead electrode assembly comprising:
an electrode having a first face and a second face;
a backing layer disposed over the first face of the electrode; and
an appendage disposed on the first face of the electrode and extending through the backing layer.

85. (previously presented) The lead electrode assembly of claim 84, wherein the appendage includes a rod having first and second extensions and a loop therebetween, wherein

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the first and second extensions are attached to the first face of the electrode and are covered by the backing layer, and the loop extends through an opening in the backing layer.

86. (previously presented) The lead electrode assembly of claim 84, wherein the appendage is made of platinum or titanium.